## Pacific Northwest energy interests meet with southeast Idaho powerhouse



Bruce Reynolds and Bruce Wilding from INL's Fossil Energy Program (second and third from left of photo) discuss fossil energy alternatives, including conversion of coal to liquid fuel, natural gas liquefaction, carbon sequestration and the proposed energy transmission corridor from Western Canada to the states in the Southwestern U.S.

More than 50 representatives from the Pacific Northwest Economic Region (PNWER) and the Northwest Energy Technology Collaborative (NWETC) visited INL this fall for a series of regional energy discussions, hands-on INL tours, information exchanges, and one-on-one roundtable talks.

These representatives came from as far away as the Yukon, Alberta, British Columbia, and Pacific Northwest states, including Idaho, to meet and get to know INL research scientists and engineers. During their visit, they experienced the depth of INL's multiprogram national laboratory capabilities, the breadth of its energy research activities and its outreach effort to regional energy developers and providers (see INL's energy sector is dedicated to energy research, development and demonstration for the U.S. and the world).

These INL guests exchanged ideas related to ensuring the energy security of the U.S. and Canada, including the potential for enhancing and better integrating regional energy approaches. They demonstrated keen interest in INL's nuclear power, energy security and energy critical infrastructure protection missions - including its portfolio of programs and projects related to alternative fuels, fossil and renewable energy, advanced transportation technologies and environmental considerations for carbon and water management associated with energy development.

In addition to group and roundtable discussions, guests were given lab tours to meet INL's principal investigators and to engage in face-to-face technical discussions.

Participants in the exchange welcomed the opportunity to learn about energy technology commercialization in the Pacific Northwest from PNWER Executive Director Matt Morrision and NWETC Director Jeff Morris. As a result of these interactions, it was clear that the regional energy goals of these organizations and those of INL have many common elements.

Among the major energy developments in the region that are attracting international attention, and that have enormous implications for INL research and development, are those associated with the emerging energy corridor that roughly aligns with the North American Rocky Mountain landscape. This corridor contains world-class energy resources, including coal, oil shale, oilsands, natural gas and other fossil energy resources - complemented by significant renewable energy sources.

As part of the concurrent field tours offered to exchange participants, INL's Steve Herring describes the process he and his research team designed and tested to produce hydrogen using high temperature electrolysis.

Research and development is required to develop these resources in a progressive and sustainable manner, and INL maintains the relevant capabilities that can be applied to this challenge. For example, INL is providing key technical support to the State of Wyoming concerning its interest in developing and demonstrating clean coal technology. In addition, there is growing interest in the potential application of nuclear energy technology to subsurface recovery and processing of unconventional fossil energy resources (e.g., the oil sands of Alberta).



Ethan Huffman, Communications Liaison for INL's National Security program, discusses aspects of the national security and homeland defense research being conducted by INL researchers with Boeing employee Steven Vernema.

At the close of the exchange, a moderated panel discussion was held involving Morris of NWETC (based in Seattle, WA); Michael Raymont, chief executive officer, EnergyINet Inc. (based in Alberta, Canada); INL's Bob Neilson, manager, Renewable Energy and Power; and Steven Aumeier, director, INL's Energy Security Initiative. The panel's candid remarks focused on present and future challenges and opportunities in the region related to the energy development. Attendees engaged panelists by asking about national and international energy policies, the state of energy resources and reserves, and the barriers to deploying existing and future power technologies into the market place.

At the conclusion of the exchange, guests expressed appreciation for INL's energy research and development endeavors, and for its contribution and commitment to regional energy development. Since the visit, there have been substantial exchanges between INL staff and a number of the participants relative to potential collaborations.

General Contact: Reuel Smith, (208) 526-3733,